REMARKS

By this Amendment, Applicants amend claims 2 and 19 and add new claims 23-25. Claims 1-25 are therefore pending. In the Office Action of March 3, 2004[1] ("OA"), claims 1-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Pub. No. 2003/0079197 ("*Pannala*"). In addition, the Examiner objected to claim 2 and FIG. 1. Applicants address the rejection and objections as set forth below.

Objection to the Drawings

The Examiner objected to FIG. 1, alleging that "unidentified arrows input and exit from block 105" (OA at 2). Applicants file herewith one sheet of replacement drawings, labeled "Replacement Sheet," containing FIG. 1. In the replacement drawing, the arrows noted by the Examiner are deleted from FIG. 1. Applicants deem the Examiner's objection to the drawings overcome by the filing of the replacement sheet.

Applicants request that the replacement drawing be made of official record in the above-identified patent application. If the drawings for any reason are not in full compliance with the pertinent statutes and regulations, please so advise the undersigned.

Objection to claim 2

The Examiner objected to claim 2, stating that the claim should read --determining a routing pattern for the element in each bundle-- instead of "determining a routing pattern in the element for each bundle." Applicants submit that the Examiner's objection has been overcome by the amendments to claim 2 made herein, and therefore request withdrawal of the objection.

[1] The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether or not any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Rejection of claims 1-22 under 35 U.S.C. § 102(e)

Applicants traverse the rejection of claims 1-22 under 35 U.S.C. § 102(e) based on *Pannala* because *Pannala* fails to anticipate the claims. In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(e), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the...claim[s]." See M.P.E.P. § 2131 (8th Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th Ed. 2001), p. 2100-69.

With regard to independent claim 1, *Pannala* does not teach at least "establishing guidelines for designing the system; and automatically determining a routing pattern in the system for the element based on the diagram and the guidelines," as claimed. *Pannala* is directed to generating a wiring harness layout (*see* Abstract). As the Examiner notes (OA at 3), *Pannala* describes generating a wiring harness diagram according to a layout, which is generated from a netlist that is input to a symbol generator and that identifies components and their interconnections (page 2, ¶¶ 0021-0027; page 1, ¶ 0019).

Pannala does not teach at least "establishing guidelines for designing the system," as claimed. Although, as the Examiner notes, *Pannala* mentions locating and arranging "pins," producing connections between symbols, and selecting symbol pairs (page 2, ¶¶ 0026-0029), the reference does not disclose establishing guidelines for designing a system, which includes an element that connects a plurality of components, as required by claim 1. Further, while *Pannala* mentions that determinations are made during the selection of symbol pairs (see page 2, ¶¶ 0028-

0029; see also OA at 3), such functionality does not anticipate establishing guidelines for designing a system, as claimed.

Further, *Pannala* does not teach at least "automatically determining a routing pattern in the system for the element based on [a] ... diagram [associated with a system design and including the element and a plurality of components] and ... guidelines," as claimed. In *Pannala*'s system, "symbols and connections" are generated based on an inputted netlist (which identifies components and interconnections) and a layout dimension, and the wiring harness diagram is generated along the dimension and based on the symbols and connections (Abstract; page 1, ¶ 0004; *see* page 2, ¶ 0021-0022). Generating a wiring harness diagram based on "symbols and connections" and along a dimension is not consistent with automatically determining a routing pattern in a system for an element based on a diagram [including the element and a plurality of components] and guidelines for designing the system, as required by claim 1. For at least these reasons, *Pannala* does not teach each and every feature recited in claim 1.

As set forth above, anticipation under 35 U.S.C. § 102(e) requires that an applied reference disclose each and every claim element in as complete detail as is in the claim. *Pannala* does not teach each and every feature of independent claim 1 and thus, as a matter of law, cannot anticipate claim 1. The rejection of independent claim 1 under 35 U.S.C. §102(e) as anticipated by *Pannala* should therefore be withdrawn.

Independent claim 10 recites *inter alia*:

> accessing guidelines for designing the structure; and
>
> automatically determining routing patterns in the structure for the plurality of elements based on the diagram and the guidelines.

Pannala does not teach at least the above-noted recitations. *Pannala* fails to disclose that guidelines for designing a structure for routing a plurality of elements for connecting components are accessed. *Pannala* further fails to disclose automatically determining routing patterns in the structure for a plurality of elements, as claimed. Generating a wiring harness diagram based on "symbols and connections" and along a dimension is not consistent with "automatically determining routing patterns in the structure for the plurality of elements based on the diagram [including the elements and components] and the guidelines," as claimed. For at least these reasons, *Pannala* does not teach each and every feature recited in claim 10.

Independent claim 19 recites a combination of elements including:

> a memory, wherein the memory includes one or more guidelines for designing the system; and
>
> a routing design module for automatically determining routing patterns in the system for the element based on the diagram and the guidelines.

For at least the reasons advanced above in connection with claim 1, *Pannala* does not teach "automatically determining routing patterns in the structure for the element based on the diagram and ... guidelines [for designing the system]," as recited in claim 19. Moreover, *Pannala* does not teach guidelines for designing the system that are included in a memory. Although *Pannala* discloses an apparatus 1000 including a memory 1004 (page 3, ¶¶ 0039-0042; Fig. 10), the memory does not store "guidelines for designing the system," as recited in claim 19. Further, while *Pannala* mentions a client device, a server device, and a network (page 4, ¶¶ 0043-0045), there is no mention of guidelines for designing the system being included in these components. Instead, *Pannala* merely notes that "applications are contemplated in which a netlist is provided from a first device to a second device by way of a network" (page 4, ¶ 0045).

Pannala therefore fails to teach each and every element recited in claim 19 and thus does not anticipate claim 19.

Independent claim 21, although of different scope, includes recitations similar to those of claim 1 discussed above. In particular, claim 21 recites, *inter alia*:

> establishing guidelines for designing the system; and
>
> automatically determining a routing pattern in the system for the element based on the diagram and the guidelines.

For at least the reasons presented above in connection with claim 1, *Pannala* does not anticipate claim 21.

Independent claim 22 recites a method including, *inter alia*:

> establishing routing guidelines; and
>
> automatically determining a routing of the element to connect the plurality of components based on the routing guidelines.

Although *Pannala* mentions (as the Examiner notes) processing symbol pairs and producing a wring diagram from a netlist (page 3, ¶¶ 0033-0038), the reference does not teach establishing routing guidelines and determining a routing of an element to connect a plurality of components based on those guidelines, as required by claim 22. For at least this reason, *Pannala* does not anticipate claim 22.

Claims 2-9 depend from claim 1; claims 11-18 depend from claim 10; and claim 20 depends from claim 19. As explained above, claims 1, 10, and 19 are distinguishable from *Pannala*. Dependent claims 2-9, 11-18, and 20 are thus also distinguishable from the reference. *Pannala* does not anticipate claims 2-9, 11-18, and 20 for at least the same reasons as those discussed above in connection with base claims 1, 10, and 19.

Moreover, *Pannala* does not teach or suggest at least "receiving one or more revised guidelines for designing the system ... and determining a revised routing pattern in the system

for the element based on the diagram and the revised guidelines," as recited in claim 3. The Examiner notes (OA at 3) that *Pannala* describes "resizing and repositioning one or more symbols" (page 3, ¶ 0038; see Fig. 9). Resizing and repositioning a symbol in a layout to increase the directness of connections, as mentioned by *Pannala*, does not, however, constitute "receiving revised guidelines for designing a system ... and determining a revised routing pattern in the system for the element based on the diagram and the revised guidelines," as claimed. Because *Pannala* fails to teach each and every element recited in claim 3, *Pannala* cannot anticipate this claim. Claim 12, although of different scope, includes features having some relation to those discussed above in claim 3. For at least the reasons discussed above for claim 3, *Pannala* fails to anticipate claim 12.

In addition, *Pannala* does not teach "automatically providing information about the designed system," as recited in claim 7. In rejecting this claim, the Examiner notes (OA at 4) *Pannala*'s description of apparatus 1000 (¶ 0039). The cited disclosure from *Pannala* does not teach automatically providing information about a designed system, as claimed. Rather, it merely describes the structure and implementation of apparatus 1000. Indeed, *Pannala* does not teach "automatically providing information about the designed system," as recited in claim 7. Because *Pannala* fails to teach each and every element recited in claim 7, *Pannala* cannot anticipate this claim. Claim 16, although of different scope, includes features having some relation to those discussed above in claim 7. For at least the reasons set forth above in connection with claim 7, *Pannala* fails to anticipate claim 16.

Because *Pannala* fails to anticipate claims 1-22, the rejection of these claims under 35 U.S.C. § 102(e) based on *Pannala* should be withdrawn. Accordingly, Applicants request

withdrawal of the rejection of claims 1-22 under 35 U.S.C. §102(e) and the timely allowance of these pending claims.

New claims

New claims 23 and 24 depend from claim 1, and new claim 25 depends from claim 21. New claims 23-25 are not anticipated or rendered obvious by *Pannala* for at least the reasons set forth above in connection with base claims 1 and 21. Applicants further submit that *Pannala* does not teach or suggest all of the features recited in new claims 23-35. Applicants therefore request the timely allowance of the new claims.

Conclusion

The claimed invention is neither anticipated nor rendered obvious in view of the references cited against this application. Applicants request the Examiner's reconsideration of the application in view of the remarks presented herein, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 3, 2004

By: _____
Frank A. Italiano
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Attachment: Replacement Sheet (1 sheet, FIG. 1).